

WHAT IS CLAIMED IS:

1. An alkaline storage battery including a battery case and a group of electrodes arranged in the battery case, wherein  
5       the battery case comprises a resin case and a coating layer made of a resin formed on at least one surface selected from an inner surface and an outer surface of the resin case, and  
          a hydrogen permeability coefficient of the resin that is the material of the coating layer is  $1 \times 10^{-15}$  mol·m/m<sup>2</sup>·sec·Pa or less.  
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2. The alkaline storage battery according to claim 1, wherein  
          the resin of the coating layer is at least one resin selected from the group consisting of polyvinyl alcohol, ethylene-vinyl alcohol copolymer, polyacrylonitrile and polyvinylidene chloride.  
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3. The alkaline storage battery according to claim 1, wherein  
          the resin case is made of a polymer alloy of polypropylene and polyphenylene ether.
- 20 4. The alkaline storage battery according to claim 1, wherein  
          a thickness of the coating layer is in a range from 5 μm to 100 μm.
5. The alkaline storage battery according to claim 1, wherein  
          a hydrogen permeability of the coating layer is  $1 \times 10^{-11}$   
25 mol/m<sup>2</sup>·sec·Pa or less.
6. The alkaline storage battery according to claim 1, wherein  
          the coating layer is formed on an outer surface of the resin case.
- 30 7. The alkaline storage battery according to claim 1, comprising a multilayered film formed on the at least one surface, wherein  
          the multilayered film includes the coating layer.
8. The alkaline storage battery according to claim 7, wherein  
35       the multilayered film is integrated with the resin case by insert molding or two-color molding.

9. The alkaline storage battery according to claim 7, wherein  
the multilayered film includes a surface layer made of a water  
resistant resin.
- 5 10. The alkaline storage battery according to claim 7, wherein  
the multilayered film includes a layer containing a resin constituting  
the resin case on a surface in contact with the resin case.
- 10 11. An alkaline storage battery including a battery case and a group of  
electrodes arranged in the battery case, wherein  
the battery case comprises a resin case and a multilayered film  
formed on at least one surface selected from an inner surface and an outer  
surface of the resin case, and  
the multilayered film includes a surface layer made of a resin and a  
15 metal layer disposed between the surface layer and the resin case.
12. The alkaline storage battery according to claim 11, wherein  
the multilayered film further comprises a resin layer disposed  
between the metal layer and the resin case.
- 20 13. The alkaline storage battery according to claim 12, wherein  
the multilayered film is integrated with the resin case by insert  
molding.
- 25 14. The alkaline storage battery according to claim 11, wherein  
the resin case is made of a polymer alloy of polypropylene and  
polyphenylene ether.
- 30 15. The alkaline storage battery according to claim 11, wherein  
the metal layer is made of aluminum.